

REMARKS

Claim Rejections

Claims 1 – 22 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

5 **Response**

Claim 1

 Claim 1 has been amended to state that:

- (1) the window is a data window;
- (2) subband samples are selected as reference data according to a predetermined
10 frequency range;
- (3) the transform is a Fourier-related transform; and
- (4) the predetermined algorithm is a time-domain to frequency-domain algorithm.

 These amendments are supported, respectively, by the specification [Para 0009]:
“The MDCT 14 includes two window blocks in different length, which are an 18
15 sampled long block and a 6 sampled short block. Since continuous window blocks
under transforming are 50% overlapped, the length of the long block is 36 and the
length of the short block is 12. When sound signals are stable, the long block has
higher frequency resolution and better compression ratio, while the short block
provides better time resolution” and Para [0022]: “a selection process is executed for
20 deciding the window data block width for the next process. The window data includes
a plurality of weighted values”. The window is for determining a number of samples,
and therefore is neither for specifying a frequency range nor for specifying a time
range. The use of the weighted values means the window defines how much data
needs to be processed, and therefore Claim 1 has been amended to include the term
25 “data” for defining the window more clearly.

 [Para 0019]: “The subband selector 36 selects a portion of the plurality of subband
samples in a predetermined frequency range as a reference sample data”. As the cited
paragraph also states “a plurality of subband samples according to the input signal 10,
different subband samples corresponding to the input signal 10 at different time, and
30 each subband sample includes a plurality of frequency subbands” and “the partition

device 40 will divide the reference sample data into several subsample data of equal width, and each subsample data includes at least a subband sample” it can be clearly seen that the reference sample data corresponds to a plurality of subbands at different times, wherein the selection is according to the frequency of those subbands.

5 [Para 0019]: “the coding processing unit 34 executes a modified discrete cosine transform (MDCT) to the plurality of frequency samples”. MDCT is well-known to be a Fourier-related transform.

[Para 0022]: “Finally a transform process is executed to multiply the plurality of frequency subbands by the plurality of weighted values decided in the selection
10 process for generating a weighted result, and output the output signal by MDCT according to the weighted result”. Para [0006]: “Frequency domain coding is to transform time domain data with high relativity into irrelative domains”. Para [0011]: “the claimed invention provides an encoder capable of judging the block width of the window data in frequency domain coding”. MDCT is well-known to convert
15 time-domain data to frequency-domain data. Furthermore, dependent claim 8 specifically states that the predetermined algorithm is an MDCT algorithm.

The applicant trusts that these amendments overcome the 112 rejection and place Claim 1 in a position for allowance. In addition, these amendments do not alter limitations of the claim that were proven to be different in scope from Smyth and
20 Hilpert in the previous Office Action response,

Claims 2 – 8

Claims 2 – 8 are dependent on Claim 1. As the applicant believes the amendments to Claim 1 have enabled it to overcome the 112 rejection, claims 2 – 8 should also be found allowable.

25 Claim 9

Claim 9 has been amended to state that:

- (1) the window is a data window;
- (2) subband samples are selected as reference data according to a predetermined frequency range; and
- 30 (3) the predetermined algorithm is a time-domain to frequency-domain algorithm.

These amendments are, respectively, supported by the specification [Para 0009]:
“The MDCT 14 includes two window blocks in different length, which are an 18
sampled long block and a 6 sampled short block. Since continuous window blocks
under transforming are 50% overlapped, the length of the long block is 36 and the
5 length of the short block is 12. When sound signals are stable, the long block has
higher frequency resolution and better compression ratio, while the short block
provides better time resolution” and Para [0022]: “a selection process is executed for
deciding the window data block width for the next process. The window data includes
a plurality of weighted values”. The window is for determining a number of samples,
10 and therefore is neither for specifying a frequency range nor for specifying a time
range. The use of the weighted values means the window defines how much data
needs to be processed, and therefore Claim 9 has been amended to include the term
“data” for defining the window more clearly.

[Para 0019]: “The subband selector 36 selects a portion of the plurality of
15 subband samples in a predetermined frequency range as a reference sample data”. As
the cited paragraph also states “a plurality of subband samples according to the input
signal 10, different subband samples corresponding to the input signal 10 at different
time, and each subband sample includes a plurality of frequency subbands” and “the
partition device 40 will divide the reference sample data into several subsample data
20 of equal width, and each subsample data includes at least a subband sample” it can be
clearly seen that the reference sample data corresponds to a plurality of subbands at
different times, wherein the selection is according to the frequency of those subbands.

[Para 0022]: “Finally a transform process is executed to multiply the plurality of
frequency subbands by the plurality of weighted values decided in the selection
25 process for generating a weighted result, and output the output signal by MDCT
according to the weighted result”. Para [0006]: “Frequency domain coding is to
transform time domain data with high relativity into irrelative domains”. Para [0011]:
“the claimed invention provides an encoder capable of judging the block width of the
window data in frequency domain coding”. MDCT is well-known to convert
30 time-domain data to frequency-domain data. Furthermore, dependent claim 14

specifically states that the predetermined algorithm is an MDCT algorithm.

The applicant trusts that these amendments overcome the 112 rejection and place Claim 9 in a position for allowance. In addition, these amendments do not alter limitations of the claim that were proven to be different in scope from Smyth and Hilpert in the previous Office Action response,

Claims 10 – 14

Claims 10 – 14 are dependent on Claim 9. As the applicant believes the amendments to Claim 9 have enabled it to overcome the 112 rejection, claims 10 – 14 should also be found allowable.

10 Claim 15

Claim 15 has been amended to state that the reference data is selected according to frequency. This is supported by the specification, [Para 0019]: “The subband selector 36 selects a portion of the plurality of subband samples in a predetermined frequency range as a reference sample data”. As the cited paragraph also states “a plurality of subband samples according to the input signal 10, different subband samples corresponding to the input signal 10 at different time, and each subband sample includes a plurality of frequency subbands” and “the partition device 40 will divide the reference sample data into several subsample data of equal width, and each subsample data includes at least a subband sample” it can be clearly seen that the reference sample data corresponds to a plurality of subbands at different times, wherein the selection is according to the frequency of those subbands.

The applicant trusts that these amendments overcome the 112 rejection and place Claim 15 in a position for allowance. In addition, these amendments do not alter limitations of the claim that were proven to be different in scope from Smyth and Hilpert in the previous Office Action response,

Claims 16 – 18

Claims 16 – 18 are dependent on Claim 15. As the applicant believes the amendments to Claim 15 have enabled it to overcome the 112 rejection, claims 16 – 18 should also be found allowable.

30 Claim 19

Claim 19 has been amended to state that the reference data is selected according to frequency. This is supported by the specification, [Para 0019]: “The subband selector 36 selects a portion of the plurality of subband samples in a predetermined frequency range as a reference sample data”. As the cited paragraph also states “a
5 plurality of subband samples according to the input signal 10, different subband samples corresponding to the input signal 10 at different time, and each subband sample includes a plurality of frequency subbands” and “the partition device 40 will divide the reference sample data into several subsample data of equal width, and each subsample data includes at least a subband sample” it can be clearly seen that the
10 reference sample data corresponds to a plurality of subbands at different times, wherein the selection is according to the frequency of those subbands.

The applicant trusts that these amendments overcome the 112 rejection and place Claim 19 in a position for allowance. In addition, these amendments do not alter limitations of the claim that were proven to be different in scope from Smyth and
15 Hilpert in the previous Office Action response,

Claims 20 – 22

Claims 20 – 22 are dependent on Claim 19. As the applicant believes the amendments to Claim 19 have enabled it to overcome the 112 rejection, claims 20 – 22 should also be found allowable.

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Conclusion:

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone
25 conversation, or if the Examiner has any ideas or suggestions for further advancing the prosecution of this case.

Appl. No. 10/708,576
Amdt. dated December 31, 2008
Reply to Office action of October 03, 2008

Sincerely yours,

/Winston Hsu/

Date: 12/31/2008

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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)